X. desktop™
User Stories

With today's emphasis on increasing productivity right across the workplace, Graphical User Interfaces (GUIs) are playing a vital role in boosting a computer user's productivity through their ease of use and low training requirement.

A crucial component of any GUI is the desktop manager, shielding the user from the operating system. It is important that the desktop manager is intuitive, offers powerful object management facilities and provides a consistent interface across all the major UNIX systems.

IXI's X.desktop meets these criteria and has now emerged as the leading desktop manager for UNIX systems. X.desktop makes running software and managing information in a sophisticated "Open Systems" environment easy. Here two users, the Norwegian Telecom, and Data Sciences of Farnborough, England, highlight their experiences with the software.

Norwegian Telecom - Televerket

Televerket, the state-owned Norwegian telecommunications company with a nationwide workforce of over 15,000 delivers telephone, fax and other telecommunications services throughout Norway. In 1990 they made the strategic decision to move to Open Systems and UNIX. Having chosen their hardware, a mix of Sun, Digital and IBM workstations and servers, they also felt it vital to provide a standard user-interface across all these platforms and selected X.desktop from IXI.

Televerket is implementing its new strategy one step at a time. By 1995, there will be 8,000 workstations running office automation software - Lotus 123 and WordPerfect amongst other applications.

Mr Asbjørn Ousland, Project Manager of the office automation project at Televerket commented: "Choosing a single UNIX desktop manager for the entire company of 15,000 is not easy, but X.desktop will do the job admirably."

X.desktop represents files, programs and peripherals such as hard discs and printers as icons. Using intuitive, mouse-driven operations, icons are manipulated to copy and delete files, start programs and archive files. X.desktop shields users from the UNIX command line, allowing them get to on with their work quickly and effortlessly. The first users to

Knutsen's Fotocenter, Norway

be introduced to the new workstations are technical staff, management and general administrative staff. The majority of these users are not familiar with UNIX, so X.desktop is a vital component for a further reason; it is extremely easy to learn, and buffers non-technical users from the complexities of UNIX.

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Already bundled with the IBM workstations, X.desktop was supplied by Arena Data AS, IXI's Norwegian distributor, for the Digital and Sun workstations. Arena Data also saw to the 'localisation' of the software, translating both the software and the documentation into Norwegian.

"Running in the native language makes X.desktop a lot more comfortable to work with," said Bjørnulf Vik, President of Arena Data. "But what was really important for Televerket was X.desktop's Motif compliance." Motif has established itself as the standard 'look and feel' for UNIX, and as X.desktop is implemented using the Motif toolkit, it completely adheres to the Motif standards.

As well as having the Lotus 123 and WordPerfect software, Televerket is also using an X.400 based mail system which fully integrates with X.desktop. When a user asks for help in the mail program, this is generated by X.desktop's on-line help system which has been customised for Televerket's use.

Furthermore, the printer icon has been tailored to take care of all objects dropped on to it. A file checking program starts up whenever this occurs to ascertain the format of a particular document, so that it can be printed out correctly, with the minimum of worry for the operator.

We Make it Easy™

The next phase of Televerket's strategy is to integrate the mainframe software with the new system. Mainframe applications will therefore be running in separate windows alongside the X-based UNIX applications. This move will be facilitated by the pre-existence of X.desktop; users will already be up to speed in operating their workstations and the 'front cover' of the GUI will make handling the mainframe easier than ever.

Televerket is really just at the start of a long-term and wide-ranging program. By implementing the changeover to UNIX in manageable phases, they are ensuring that their operators can quickly get accustomed to it through the friendly GUI they have installed. In this way, staff will be better equipped to deal with the future phases of the transition. It is anticipated that by 1995, when the changeover is complete, there will be 8,000 users of X.desktop at Televerket doing a multitude of tasks. Each will be benefitting from X.desktop's visual working environment that makes any UNIX workstation as easy to use as a Mac.

Data Sciences

Data Sciences of Farnborough, England is a system integrator who have used IXI's X.desktop in their command and control systems for defence and civil installations. They found that many of their customers were moving strongly towards Open Systems as they could see the benefits it would bring them - a flexible procurement strategy where they could shop around for the cheapest hardware and software solutions.

The Command Support System (CSS) developed by Data Sciences allows civil and military command support systems to be rapidly prototyped on UNIX workstations. These systems comprise a blend of map/graphics software developed by Data Sciences, together with Uniplex office automation and Oracle relational database tools. A GUI was considered essential to co-ordinate all these elements and Data Sciences chose X.desktop to complement the Motif look and feel.

"Most end users of command support systems will not be familiar with operating computers, but will need to pick up and use the system straight away," said Tony Bell, Senior Consultant in the Defence and Scientific Division at Data Sciences. "X.desktop proved to be the key, as it provides an intuitive and easy to learn interface."

X.desktop's famed ease of use is mainly attributable to its drag-and-drop metaphor. To edit a file, it is dragged to the Uniplex editor and X.desktop automatically starts the program. Data Sciences has used this feature fully for both Oracle and Uniplex tools, and their own software. For example, a data file containing information on a map overlay is automatically generated from the map/graphics software. This icon can be placed on the "desktop" just like any other object so it is immediately accessible and the overlay redisplayed on the map by dropping it on to the map tool icon.

As a prototyping tool, Data Sciences CSS needs to be very flexible. Part of this flexibility is achieved with X.desktop, which enables specialist applications to be easily integrated into the system. The system has been designed to support three levels of user, and X.desktop has been configured for each of these users, with a separate set of pull down menus giving access to different aspects of the command support system.

X.desktop includes all the files, utilities and documentation needed to build customized environments. Rules can be added to give X.desktop extra information about user experience levels or preferences and to create new objects or object families with special behaviour. Dialog boxes and alert boxes can be added and using X.desktop's powerful mfyi, mfni, mgti and tellxdt utilities, the system integrator can develop a fully integrated software environment.

"We've done a lot of work configuring X.desktop because our own requirements are so specialized," commented Bell. "It was important we had tight control over how users interacted with the command control system -

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Great use was made of the ability to extend X.desktop's on-line help system - X.deskhelp. This provides hypertext based help as a series of books. Data Sciences put the documentation on their software on-line and linked help messages into each error message generated by the software. This proved very useful as it explains to the user where he or she went wrong. In addition, help has been linked into each of their specialized icons, holding down button 3 brings up help for that particular icon.

X.desktop is configured by editing the text-based rule files which operate on a number of levels - on a per system, per user, per environment and per task level. X.desktop 3.0 has its own shell-like programming language

- Deskshell, which runs internally to X.desktop, bringing the benefits of faster performance and reduced memory usage.

Data Sciences particularly liked X.desktop 3.0's ability for the desktop manager to take over the whole screen when it is in root window mode. In this way, windows can't disappear behind the main X.desktop window and confuse the user.

Data Sciences have had a very favourable reaction to the user interface of the Command Support System. The ease of use of X.desktop's iconic interface together with the Motif look and feel used throughout the system, has enabled new users to learn its operation within a matter of hours.